

# ENDURO PLUS VE6

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## Product type

Highly alkaline, hypochlorite-containing cleaning detergent and disinfectant, suitable for removal of protein, fat and carbohydrate-containing soil in the food industry. Creates a foam gel film with very good adhesion after application.

*Use disinfectants safely. Always read the label and product information before use.*

## User information

Use foam nozzle upon application. Adjust the air pressure in the application equipment to approximately 3,7 bar to ensure proper foam quality. Dosage in foam systems: 2 – 10 % EnduroPlus depending on the soil type.

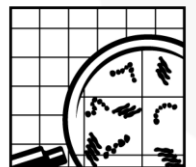
1. Remove all visible soil.
2. Apply foam on all relevant surfaces and leave on for 6-8 minutes. When cleaning vertical surfaces; apply from the bottom and up.
3. Rinse well with clean water.

## Technical data

Solubility:	Completely soluble
Density:	ca. 1,23 kg/l
pH:	Minimum 13 (konc.), ca. 12 (1% solution), ca. 13 (10% solution)
Reactivity:	When mixed with acid or ammonia-containing products, irritating and toxic gases develop. EnduroPlus corrodes light metals under formation of hydrogen gas, which can form an explosive mixture with air.
Corrosion:	Stainless steel is not affected. May cause corrosion on aluminum, light metals and galvanized surfaces.

## Storage and durability

Store dark and cool, but frost proof. Heat and sunlight will reduce the level of available chlorine. Recommended use within half a year of production. Products that are stored for a long time or has been exposed to heat and sunlight will have a reduced effect.



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## Test method

Reagents: 0,1 N Hydrochloric or sulphuric acid  
 50 % Sodium thiosulfate solution  
 Thymol blue indicator

Procedure: Add 5 drops of thiosulfate solution to 20 ml solution. Mix well and leave for approx. 30 seconds. Add 2-3 drops of the indicator solution and titrate with the acid until color change from blue to yellow end point.

Calculation: % w/w EnduroPlus = ml acid x 0,248

Typical conductivity values:

EnduroPlus [% w/w]	Conductivity at 25 °C [mS/cm]
1	6,5
2	12,9
3	19,2
4	25,2
5	31,1
6	36,7
7	42,4

## Efficacy tests (only available in Norwegian)

Oversikt over EN-tester og organismer for EnduroPlus, samt konsentrasjoner og virketider for beståtte tester					
Standard	Konsentrasjon	Virketid	Type organismer	Organismer	Testbeskrivelse
EN 1276	1,00 %	5 min	Bactericidal	Staphylococcus aureus	Kvantitativ baktericid suspensjonstest, 20 °C og dirty. Krav til log reduksjon: ≥ 5 log
	1,00 %	5 min	Bactericidal	Enterococcus hirea	
	1,00 %	5 min	Bactericidal	Escherichia coli	
	1,00 %	5 min	Bactericidal	Pseudomonas aeruginosa	
	5,00 %	5 min	Bactericidal	Staphylococcus aureus	Kvantitativ baktericid suspensjonstest, 4 °C og dirty (3 g/L BSA + 3 g/L ERY). Krav til log reduksjon: ≥ 5 log
5,00 %	5 min	Bactericidal	Enterococcus hirea	Krav til log reduksjon: ≥ 5 log	
EN 1650	0,50 %	15 min	Yeasticidal	Candida albicans	Kvantitativ fungicid/yeasticid suspensjonstest, 20 °C og dirty. Krav til log reduksjon: ≥ 4 log
	3,25 %	15 min	Fungicidal	Aspergillus niger	
	3,00 %	15 min	Yeasticidal	Candida albicans	Kvantitativ fungicid/yeasticid suspensjonstest, 4 °C og dirty (3 g/L BSA + 3 g/L ERY). Krav til log reduksjon: ≥ 4 log
EN 1656	5,00 %	15 min	Bactericidal	Staphylococcus aureus	Kvantitativ baktericid suspensjonstest, 10 °C og dirty (10 g/L BSA + 3 g/L yeast extract). Krav til log reduksjon: ≥ 5 log
	5,00 %	15 min	Bactericidal	Enterococcus hirea	
	5,00 %	15 min	Bactericidal	Proteus hauseri	
	5,00 %	15 min	Bactericidal	Pseudomonas aeruginosa	
EN 1657	4,00 %	15 min	Yeasticidal	Candida albicans	Kvantitativ fungicid/yeasticid suspensjonstest, 10 °C og dirty (10 g/L BSA + 3 g/L yeast extract). Krav til log reduksjon: ≥ 4 log

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## Efficacy tests (only available in Norwegian)

Oversikt over EN-tester og organismer for EnduroPlus, samt konsentrasjoner og virketider for beståtte tester					
<b>EN 13697</b>	2,50 %	5 min	Bactericidal	Staphylococcus aureus	Kvantitativ baktericid og fungicid/yeasticid overflatetest, 20 °C og dirty. Krav til log reduksjon: - Bactericidal ≥ 4 log - Yeasticidal/Fungicidal ≥ 3 log
	2,50 %	5 min	Bactericidal	Enterococcus hirea	
	2,50 %	5 min	Bactericidal	Escherichia coli	
	2,50 %	5 min	Bactericidal	Pseudomonas aeruginosa	
	0,50 %	15 min	Yeasticidal	Candida albicans	
	4,00 %	15 min	Fungicidal	Aspergillus niger	
	6,00 %	5 min	Bactericidal	Staphylococcus aureus	Kvantitativ baktericid og fungicid/yeasticid overflatetest, 20 °C og dirty (10 g/L Yeast extract). Krav til log reduksjon: - Bactericidal ≥ 4 log - Yeasticidal/Fungicidal ≥ 3 log
	3,00 %	5 min	Yeasticidal	Candida albicans	
	3,00 %	5 min	Yeasticidal	Saccharomyces cerevisiae	
	9,00 %	5 min	Fungicidal	Aspergillus brasiliensis	
	0,25 %	5 min	Bactericidal	Staphylococcus aureus	Kvantitativ baktericid og fungicid/yeasticid overflatetest, 20 °C og dirty (10 g/L saccharose). Krav til log reduksjon: - Bactericidal ≥ 4 log - Yeasticidal/Fungicidal ≥ 3 log
	0,25 %	5 min	Yeasticidal	Candida albicans	
	0,10 %	15 min	Yeasticidal	Candida albicans	
	2,00 %	5 min	Fungicidal	Aspergillus brasiliensis	
	1,00 %	15 min	Fungicidal	Aspergillus brasiliensis	
	3,00 %	5 min	Bactericidal	Staphylococcus aureus	Kvantitativ baktericid og fungicid/yeasticid overflatetest, 20 °C og dirty (10 g/L skim milk). Krav til log reduksjon: - Bactericidal ≥ 4 log - Yeasticidal/Fungicidal ≥ 3 log
	0,25 %	5 min	Yeasticidal	Candida albicans	
	9,00 %	5 min	Fungicidal	Aspergillus brasiliensis	
	3,00 %	15 min	Fungicidal	Aspergillus brasiliensis	
	6,00 %	5 min	Yeasticidal	Candida albicans	Kvantitativ baktericid og fungicid overflatetest, 4 °C og dirty (10 g/L yeast extract). Krav til log reduksjon: - Bactericidal ≥ 4 log - Yeasticidal/Fungicidal ≥ 3 log
	6,00 %	5 min	Yeasticidal	Saccharomyces cerevisiae	
	5,00 %	5 min	Bactericidal	Staphylococcus aureus	Kvantitativ baktericid og fungicid overflatetest, 4 °C og dirty (3 g/L BSA + 3 g/L ERY). Krav til log reduksjon: - Bactericidal ≥ 4 log - Yeasticidal/Fungicidal ≥ 3 log
	5,00 %	5 min	Bactericidal	Enterococcus hirea	
	3,00 %	15 min	Yeasticidal	Candida albicans	
	7,00 %	15 min	Fungicidal	Aspergillus brasiliensis	
<b>EN 14476</b>	2,00 %	1 min	Virucidal	Adenovirus Type 5	Kvantitativ virucid suspensjonstest, 20 °C og dirty (3 g/L BSA + 3 g/L ERY). Krav til log reduksjon: ≥ 4 log
	2,00 %	1 min	Virucidal	Poliovirus Type 1	
	2,00 %	1 min	Virucidal	Murine norovirus	
	2,00 %	5 min	Virucidal	Adenovirus Type 5	
	2,00 %	5 min	Virucidal	Poliovirus Type 1	
<b>EN 16777</b>	2,00 %	5 min	Virucidal	Murine norovirus	Kvantitativ virucid suspensjonstest, 4 °C og dirty (3 g/L BSA + 3 g/L ERY). Krav til log reduksjon: ≥ 4 log
	2,00 %	5 min	Virucidal	Poliovirus Type 1	
	2,00 %	5 min	Virucidal	Murine norovirus	
	2,00 %	5 min	Virucidal	Murine norovirus	
	2,00 %	5 min	Virucidal	Murine norovirus	
<b>EN 16777</b>	2,00 %	1 min	Virucidal	Murine norovirus	Kvantitativ virucid overflatetest (ikke porøse), 20 °C og dirty (3 g/L BSA + 3 g/L ERY). Krav til log reduksjon: ≥ 4 log
	4,00 %	1 min	Virucidal	Adenovirus Type 5	
	4,00 %	1 min	Virucidal	Adenovirus Type 5	
	2,00 %	5 min	Virucidal	Adenovirus Type 5	
<b>EN 14349</b>	4,00 %	1 min	Virucidal	Murine norovirus	Kvantitativ virucid overflatetest (ikke porøse), 4 °C og dirty (3 g/L BSA + 3 g/L ERY). Krav til log reduksjon: ≥ 4 log
	2,00 %	5 min	Virucidal	Adenovirus Type 5	
	4,00 %	1 min	Virucidal	Murine norovirus	
	2,00 %	5 min	Virucidal	Murine norovirus	
<b>EN 14349</b>	6,00 %	30 min	Bactericidal	Staphylococcus aureus	Kvantitativ baktericid overflatetest, 10 °C og dirty (10 g/L BSA + 10 g/L yeast extract). Krav til log reduksjon: ≥ 4 log
	6,00 %	30 min	Bactericidal	Enterococcus hirea	
	6,00 %	30 min	Bactericidal	Proteus hauseri	
	6,00 %	30 min	Bactericidal	Pseudomonas aeruginosa	
<b>EN 16438</b>	3,00 %	30 min	Yeasticidal	Candida albicans	Kvantitativ yeasticid overflatetest, 10 °C og dirty (10 g/L BSA + 10 g/L yeast extract). Krav til log reduksjon: ≥ 3 log
<b>EN 13610</b>	1,00 %	15 min	Virucidal	Bacteriophages P001 & P008	Kvantitativ virucidal suspensjonstest, 20 °C og dirty (1% acid whey). Krav til log reduksjon: ≥ 4 log
<b>EN 13704</b>	3,00 %	30 min	Sporicidal	Bacillus subtilis	Kvantitativ sporicidal suspensjonstest, 20 °C og dirty. Krav til log reduksjon: ≥ 3 log